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ANNUAL REPORT

OF THE

PRESIDENT

OF

TUFTS COLLEGE.

1876 - 77.

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TUFTS COLLEGE.

PRESIDENT'S REPORT FOR 1876-77.

To the Honorable and Reverend,

The Trustees of Tufts College.

Gentlemen:

THE President of the College has the honor to submit the following Report for the academic year 1876-77.

The Board of Trustees has lost during the year, one member by death. The venerable Charles Tufts, one of the earliest friends and most munificent benefactors of the College, in whose honor the institution was named, passed away, on the 24th December, 1876. The original gift of Mr. Tufts was twenty acres of land, comprising the beautiful eminence on which the buildings of the College now stand. This tract was subsequently enlarged by donations made at various times, so that his total gift of land to the institution is in the neighborhood of one hundred acres. For many years on account of the infirmities of age, Mr. Tufts was prevented from taking an active part in the deliberations of the Corporation, or even from giving his attendance at the public exercises of the College; but his interest in the charity which his generosity had done so much to create was unabated to the last. Without scholastic training himself he had a profound sense of the value of learning. Unostentatious and simple in his manner of life he has given to the world a splendid example of public beneficence. Frugal in his habits and carefully husbanding his fortune, by freely parting with a portion of his possessions in his own lifetime for this object, he has placed himself among the foremost benefactors of the world: for he who lays the foundations of a college, making provision for the instruction of countless generations of the nation's youth in knowledge and virtue, taking measures to preserve the wisdom of mankind from waste and decay, stimulating research, kindling the faculties of the human mind, and literally causing the light to shine in darkness, must be counted as a most efficient helper in the civilization and progress of the race.

The whole number of students admitted to the College, during the year, in all departments, is forty-three. They are distributed as follows:

Junior Class, .			1
Freshman Class,	•	•	26
1st Engineers, .			5
Divinity School,	•		11
Total,		. **	$\overline{43}$

The whole number of students who are members of the College in all departments is one hundred and twenty, of whom eighty-nine are undergraduates and thirty-one are in the Divinity School.

The following table shows the number of students in the College, and in each department of the same during the last five years:

YEAR. UND	ER-GRADUATES.	DIVINITY	SCHOOL.	POST-GRADUATES.	TOTAL.
72-73	60		20		80
73-74	61.		15		76
74-75	56		30		86
75-76	69		24	4	97
76-77	89		31		120

It will be seen that the number of under-graduates has increased a fraction over forty-eight per cent in five years, and that the number of students in the whole College has increased just fifty per cent. Considering the youth of the College, the limited constituency to which it is in a measure confined for its patronage, and the various causes which tend to retard the rapidity of its growth, its present membership must be regarded as very satisfactory. If we have in view the present facilities for teaching, the accommodations for residence at the College, the conditions for doing the most effective work, it is not perhaps desirable that the number of under-graduates should greatly exceed one hundred. But though the number of students admitted to the College has greatly increased of late we have not yet reached a point where even that number can be confidently relied upon. In my last annual report I called attention to the need of a special fitting school. The need becomes more imperative with every successive year. The proposition to change Dean Academy from a mixed school to a school for girls only, shuts up one avenue on which the College has heretofore depended. reliance upon the academies and high schools of New England must be somewhat precarious. There should be a school holding a more intimate and vital relation. Such a school would not require a large expenditure of money. A sum sufficient to secure a school-room and comfortable lodgings for the students would answer for a beginning. No friend of the College could render it a more effective service than by endowing such a school.

The fluctuation in the number of students in the

Divinity School as shown by the foregoing table is due, in part, to the substitution in 1874-75 of a four years' course in theology for a three years' course. While this step has undoubtedly had the effect of increasing the membership of the School, and given a far better preparation to those who have not had the advantage of a collegiate training, it is questionable whether it has not, or will not, diminish the percentage of Bachelors of Arts among those who are working for a degree in Divinity. Of the eleven students who entered the Divinity School this year, not one is a college graduate. Under any system that may be devised there will always be some who aspire to the Christian ministry whose circumstances render a full collegiate course impracticable. In many cases they are persons of good natural abilities and considerable elementary knowledge. It would doubtless be unwise to discourage them from fulfilling their desires. The instances in which such persons in all denominations have risen to the very highest rank in their profession forbid any harsh discrimination against them. But it should never be forgotten that the College and Divinity School alike demand the highest possible standard of professional education, and that the slightest tendency to abridge the scope of intellectual acquirement among those whose walk in life calls for a complete equipment is a violation of the moral trust reposed in them. It is not pertinent to the objects of this Report to inquire whether the diminished respect which is paid to the Clergy is in any degree due to a decline in the general education of the clerical body. Whatever view may

be held on that point it will be admitted that the Christian ministry still has the advantage over the other learned professions; for while, until quite recently, Law Schools and Medical Schools throughout the country have opened their doors freely to all who chose to enter, without regard either to their mental or moral qualifications, Divinity Schools have uniformly insisted upon conditions of entrance. It is proper, however to ask whether the colleges and universities of the land do not stultify themselves and cast reproach upon the very work they were instituted to perform, in assuming to give a second degree to those who could not take the first degree. Possibly the four years' course in our own school has not yet been fully and fairly tried, and it might be unwise in any event to return suddenly to the three years' course. But whatever plan is pursued the entrance conditions should be changed as soon as practicable, until they are the same as those which are demanded of candidates for admission to the Freshman class; a distinction perhaps should also be made among the graduates of the Divinity School, the degree of Bachelor of Divinity being reserved to those who are Bachelors of Arts, or who can pass a satisfactory examination in studies which are the equivalents of those taken by undergraduates in the College. In this way the College cannot be held responsible for the inference that four years in the professional school, exclusive of the three or four years spent in preparation, is an adequate substitute for seven years in college and professional school together.

The demand for additional rooms in the dormitories has been supplied by the repairs which were

made upon the Middle Hall during the vacation. Notwithstanding this increase of accommodations, nearly every available room is now occupied, and should the number of students continue to increase a new dormitory will soon become a necessity.

The experiment of abolishing the Winter vacation, putting the two terms together, treating the college-year as solid, and holding final examinations as far as practicable on the completion of topics, instead of by terms as heretofore, has been satisfactorily tried. The plan appears to be perfectly successful. The students have been easily held to their studies, and there has been no spirit of discontent, nor any unusual indication of fatigue. The work accomplished has been more in quantity and better in quality than in previous years.

At the last entrance examination, students were permitted to try for the new Philosophical course which substitutes the Modern Languages for Greek in the course for which the degree of Bachelor of Arts is given. Five candidates offered themselves and were accepted. Some abatement of the conditions of entrance was made because of the brevity of the notice given of the opening of such a course. It is therefore more difficult to judge of its capabilities than it would be if the material of the class had been different. Nothing, however, has occurred to impeach the wisdom of the authorities in establishing the course, but everything thus far confirms it. At the next examination the standard adopted will be rigidly maintained, and it will be advanced, from time to time, as often as may be necessary to make it the equivalent, in respect of the time

required to reach it, of the standard of admission to the regular course.

The range of electives; which was considerably enlarged last year, has been still further enlarged this year by the addition of chemistry in the Junior year, and of jurisprudence, chemistry and physics in the Senior year. The more general recognition of the elective system in doing the work of the College is a forward step. It meets with approval in every quarter. The students like it, because it not only enables them to pursue with especial profit studies to which they are attracted by inclination and capacity, but because it saves them from wasting their energies upon departments in which they can make no very marked progress. The quality of instruction is improved by breaking up the classes into small sections and bringing the men directly and constantly under the influence of the instructor. The work of teaching is materially increased by multiplying the hours of recitation, but the instructor is compensated by the enthusiasm which men naturally feel when they are working in lines which they have selected for themselves.

A number of Bachelors of Arts are now working, under the direction of the Faculty of the College, according to the rules adopted last year, for the Master's degree. Others have signified their intention to enter upon special courses with that object in view next year. Should the practice continue, as it undoubtedly will, it will be desirable soon to give the Masters a place in the Commencement programme, contributing thus to the interest

of the occasion and greatly raising the standard of public performances at the College.

In order to stimulate the enthusiasm of students and raise the standard of attainment in particular departments it has been decided to confer Special Honors at Commencement upon any Senior of the Regular course or of the Philosophical course who shall comply with certain prescribed conditions. First he must excel in the required work of the study in which he desires honors, and also in the required work of two cognate studies. Secondly, in this and a cognate study, he must have taken the equivalent of six hours a week for a year of elective work, and must have passed the examinations on them with distinction. Thirdly he must pass an examination before a committee of the Faculty, on as much extra work in the study in which he desires honors, as would be equal to two hours a week for a year. This examination may be either oral, written, or by practical work, and may be so extended as to cover the whole work of the student in that department. The departments of Natural History, Physics, Chemistry, Mathematics, English Literature, Philosophy, Modern Languages and Classics, have been opened for honors. The grade of honors, as well as the departments, will be mentioned in the diploma and printed in the catalogue.

The increase in the number of students has correspondingly increased the number of young men in the College who are compelled to look to other sources of pecuniary support than parents or guardians. The whole amount expended for beneficiary loans, exclusive of scholarships, gratuities,

and prizes, for which not less than twenty-five hundred dollars is annually expended, will not be far from four thousand dollars. If the continuance of aids in the form of loans were not forbidden by the condition of the Treasury, it might be an open question whether the policy itself ought to be encouraged. There are various considerations which render its expediency extremely doubtful. In the first place there is great danger that the selfrespect and self-reliance of the beneficiaries may be impaired by it. Then there is the further danger that they will come to look on what was intended only for a loan, to be paid into the Treasury again with interest, as an absolute gift. But the chief objection to the system is the delicacy and difficulty of its administration. The wisest precautions cannot protect it from abuse. So long as pecuniary necessity is the only ground on which assistance is given, unworthy men will contrive to receive it. If the door is opened at all, those whose necessities are not pressing will somehow manage to slip in. The only alternative seems to be to cease altogether to help men to an education by this method. But this determination places the College in an uncomfortable dilemma. There are at least twenty young men of good ability and excellent promise who must have pecuniary aid from some source or leave the College. They will return to their homes, moreover, with disappointed hearts and blighted prospects, their powers of usefulness in the world forever abridged. To increase the bitterness of their lot, they will have to reflect that almost every college in New England enjoins young men not to let poverty deter them from the attempt to enter, but invites them to come and assures them that means will be provided for them. To remedy the evil, or rather to prevent it from coming into existence, private charity, temporarily at least, must be put in requisition. Individuals and organizations outside of the College must be called upon to supply what the College is no longer able to furnish. To permit young men to abandon their hopes of an education on account of poverty, would be not only a calamity to themselves, but a loss to the world. A spasm of charity, however, does not remedy the difficulty, it only averts it for a time. There should be a number of endowed scholarships, yielding an income which would cover the wants of students in addition to college charges. They might be awarded to such needy students as should fulfil conditions of rank imposed by the Faculty or by their founders. It is especially to be desired that scholarships should be established in favor of young men who intend to enter the Christian Ministry through the College and the Divinity School. Let those who are interested in the promotion of general science and sound learning, as well as the highest order of professional attainment, heed the appeal that comes to them at this time.

The continued depression in business greatly reducing incomes from every form of investment, has brought the College into grave financial embarrassment. It is no longer possible to keep up the present rate of expenditure without wasting the capital of the institution. The latter course, however, is forbidden by every consideration of business prudence and moral obligation. At what-

ever sacrifice to private individuals or hazard to the welfare of the College, expenses must be reduced. But this is only a temporary expedient, and can only afford a temporary relief. However cheerfully Professors may relinquish a portion of their salaries to meet a necessity, they cannot be expected permanently to forego the just reward of their services, or to refuse the opportunities for emolument which will open to them in other fields. The College must have, at no distant day, an ampler endowment, or forever forfeit the success which is already within its grasp. It is perhaps unfortunate that the impression has been suffered to go abroad that the College is rich. In fact an institution which seeks to do so much and which is capable of such high achievement can never be rich. It must ever be reaching out in all directions, pressing forward in the ranks of learning, providing itself with new facilities of instruction, multiplying the objects of human research, refining the quality of its scholarship, and leading its members to new and loftier heights of intellectual and moral attainment. If for one moment its courage flags in the race, if for one moment its energies are paralyzed, through fatigue or fear, from that moment it will drop into desuetude and decay. There are doubtless persons of substantial fortune who have long regarded with affectionate interest the progress of the College, and who intend, at some future time, to make it the recipient of their bounty. If such persons could be reached by the proper authorities they might be induced to anticipate their intentions. Certainly there never was a time when an appeal could be made with greater confidence. For, apart

from the rich fruit which the College has borne to the Church and the world, its internal prosperity was never so great as it is to-day. If relief does not speedily come in some such way then an appeal must be made to the public as soon as the condition of business will furnish a reasonable hope of success. In ordinary times of commercial prosperity, it ought not to be difficult to secure a special endowment of the Divinity School. Two hundred thousand dollars would put the School on a basis of permanent independence and permit the income of funds which are now used for its support to be applied to general purposes. The same practical end could be reached through endowed professor-Individuals desiring for themselves the ships. noblest monument which money can erect in this world might be persuaded to furnish the foundations of professorships, either in the College or Divinity School, and thus liberate the unrestricted funds of the institution.

The work of the several departments has been satisfactorily performed. The increase in the size of the two lower classes, rendering it necessary to break them into sections, has added to the labor of individual instructors. The quality of the instruction has been improved, however, by the opportunity which is thus afforded of classifying men according to their attainments in the studies which they are pursuing. The following tables give the names of instructors, the number of classes and pupils under their charge, the subjects on which instruction is given, and the number of hours per week spent in the recitation room under the supervision of the teacher:

SENIORS. (SEE ELECTIVES BELOW.)

Instructor.	Subject.	Text Books — Nature and amount of work.	No. of Students.	No. of Students. Hours per week.
President Capen.	Yeol. Economy.	Fawcett's — with Lectures. Fleming's Manual — with Lectures.	16 cl. 1 eng. iii. 3 for ½ year. 4 for ½ year.	3 for ½ year. 4 for ½ year.
Prof. Marshall.	Comp. Zoology. Physiology. Botany. Mineralogy. Geology.	Orton's. Lectures. Gray's Lessons. Dana's—with Lectures. Practical Microscopy—with Lectures.	16 cl.	3 for 4 year. 1 for 5 year. 4 for 2 months. 2 for 4 year. 2 for 5 year. 1 for year.
Prof. Shipman.	$\left\{ egin{array}{ll} { m Logic.} \ { m Psychology.} \ { m Rhetoric.} \end{array} ight.$	Jevons'—completed. Day's; Porter's, Parts I. & II. Forensics — 4 written, 2 oral, last ½ year.	16 cl.	3 first ½ year. 2 second ½ year.
Prof. Dolbear.	Astronomy.	White's—with Lectures.	16 cl. 1 eng. iii.	16 cl. 1 eng. iii. 2 second ½ year.
Prof. B. G. Brown	Calculus,	Differential and Integral, with Lectures.	1 eng. iii.	3 for year.
Prof. Bray.	App. Mechanics. Engineering. Steam Engine. Drafting.	Rankine's — with Lectures. Mahan's; Henck's Field-Book. Main and Brown—Lectures.	1 eng. iii.	3 for year. 2 for year. 1 for year. 3 for year.

Note. The Roman numerals after eng. [engineer] denote the class.

JUNIORS. (SEE ELECTIVES BELOW.)

Instructor.	Subject.	Text Books — Nature and amount of work.	No. of Students.	Hours per week.
Prof. Shipman.	Rhetoric. Logic. Eng. Literature.	Hepburn; Five themes. Jevons'. Authors of the 18th century.	{ 10 cl. 3 ph. 6 eng. ii. 10 cl. 3 ph. 10 cl. 3 ph. 10 cl. 2 ph.	3 for ½ year. 2 for ½ year. 1 for ½ year.
Prof. Marshall.	Botany.	Gray's Lessons.	10 cl. 1 ph.	2 for ½ year.
Prof. Dolbear.	Physics.	Stewart's — with Lectures.	{ 10 cl. 3 ph. 6 eng. ii.	3 for year.
Prof. Fay.	German.	Whitney's Reader—(100 pages).—Goethe, Hermann und Dorothea. Grammar in lectures with Whitney for reference.	$\begin{cases} 10 \text{ cl. 1 ph.} \\ 1 \text{ eng. ii.} \end{cases}$	4 for year
Prof. B. G. Brown.	Calculus.	Loomis's.	6 eng. ii.	3 for year.
Mr. Pitman.	Chemistry.	Roscoe. Laboratory practice (2 divisions.) Organic Chemistry by Lectures.	{ 10 cl. 1 ph. 6 eng. i.	3 for ½ year. 1½ for year. 1 for ½ year.
Prof. Bray.	(Iron Manuf. (App. Mechanics. Engineering.	Bauermann. Rankine's, with Lectures. Field Practice.	6 eng. ii. 2 for ½ year. 2 for year.	2 for ½ year. 2 for year. 2 for year. 2 for year.

SOPHOMORES.

Hours per week.	4 for year.	4 for year.	3 for year.	1 for 6 mos.	4 for ½ year. 4 for ½ year. 4 for ½ year.	1 for ½ year.	1 for ½ year. 1 for ½ year.
No. of Students.	19 cl.	19 cl.		19 cl. 2 ph.	4 for ½ year. 19 cl. 6 eng. i. 4 for ½ year. 10 cl. 5 eng. i. 4 for ½ year.	10 cl.	{ 19 cl. 2 ph. } 6 eng. ii.
Text Books - Nature and amount of work. No. of Students.	Lysias, Oration against the Grain-Dealers; against Eratosthenes; concerning the Sacred Olive Trunk; Funeral Oration. Euripides, Medea. Written Translations into Greek—on alternate	Weeks. Lectures on Greek Antiquities. Horace, I book Satires and Ars Poetica. Cicero, Cato Major. Tacitus, Germania and Agri- cola. Written Translations into Latin.	Languellier and Monsanto's Grammar. Erckmann-Chatrian, Madame Thérèse (150 pp.) $\{$ 6 eng. \ddot{n} .	Authors of 16th century. Five themes.	Olney's Plane and Sphenical Trigonometry; Howison's Analytic Geometry. Olney's Analytic Geometry Part III.	Field Practice (2 divisions) in Chain, Compass and Triangular Surveying.	Reading. Declamation.
Subject.	Greek.	Latin.	French.	Eng. Literature. Rhetoric.	Mathematics.	Surveying.	Oratory.
Instructor.	Prof. Schneider.	Prof. Dearborn.	Prof. Fay.	Prof. Shipman.	Prof. B. G. Brown.	Mr. Pitman.	Prof. M. T. Brown.

FRESHMEN.

Instructor.	Subject.	Text Books - Nature and amount of work. No. of Students. Hours per week.	No. of Students.	Hours per week.
President Capen.		Lectures on the Rise and Progress of Learning.	21 cl. 5 ph.	1 for ½ year.
Prof. Schneider.	Greek.	Boise and Freeman's Selections from Greek Authors: Demosthenes, Third Olynthiac; Xenophon's Memorabilia; Thucydides, Chapters XXII.—IXII. 18 pages. Odyssey 1080 lines; Herodotus, pages 38–57; Lectures on the Geography and Topography of Ancient Greece; Greek Prose Composition on alternate weeks.	21 cl.	5 for year.
Prof. Dearborn.	Latin.	Livy, Book XXI.; Horace, Odes, 2‡ Books. Latin Prose Composition—Harkness, Part III. Extempore exercises. several chapters. Roman History, Rawlinson's Manual; Liddell, Ramsay's Roman Antiquities.	21 cl. 8 ph.	6 for year.
Prof. Shipman.	Rhetoric.	Abbott's, How to write clearly. Spalding's, Part 1. and 11.; Chaucer.	5 ph.	2 for year.
Prof. M. T. Brown. Prof. B. G. Brown.	Oratory. Mathematics.	Reading; Declanation. Algebra, Olney's, to Higher Equations; Trigonometry, Wheeler's.	21 cl. 5 ph. 6 en. i. 1 for ½ year. 1 for ½ year. 21 cl. 5 ph. 4 for year.	1 for ½ year. 1 for ½ year. 4 for year.
Prof. Bray.	Desc. Geometry. Surveying. Shades & Shadows Road Engineering Gilmore's. Drafting.	Desc. Geometry. Surveying. Shadows (Church's. Shadows (Church's. Road Engineering (Gilmore's; Henck's.	6 eng. i.	3 first ½ year. 3 first ½ year. 3 second ½ year. 3 second ½ year. 1 for year.
Mr. Pitman.	Iron Manufacture, Greenwood.	Greenwood.	5 eng. i.	2 for 4 year.

ELECTIVE CLASSES.

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Hours per we	3 for \(\frac{3}{4}\) year.	5 for year. 2 for \(\frac{1}{2} \) year. 2 for \(\frac{1}{2} \) year.	3 for ½ year. 2 for ½ year.	9 for year. 6 for ½ year. 9 for year. 4 for ½ year. 4 for ½ year. 4 for ½ year. 1 for ½ year.	1 for ‡ year. 2 for 6 months. 2 for year. 2 for 6 months. 2 for year.
No. of Students. Hours per week.	6 seniors.	$\begin{cases} 2 \text{ seniors.} \\ 2 \text{ seniors.} \\ 1 \text{ senior.} \end{cases}$	2 seniors. 8 juniors.	\[\{ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1 senior. 2 juniors. 2 seniors. 2 juniors. 1 soph. (ph.)
Text Books—Nature and amount of work.	Maine, with Lectures.	Qualitative and Quantitative Blowpipe Analysis; Elderhorst's and Platiner's.	Physics. Physical Manipulations. Phys. Geography. Young's with Lectures.	Qualitative Analysis; Clowes or Crafts. Quantitative Analysis; Sharpe. Chemical Manipulation; Eliot and Stover. Photography, practical work.	Mill's Logic. American Orators from Henry to Calhoun. Elizabethan Dramatists; Kames' Elements. Literature from Chaucer to Dryden in its relation to History. Literature of 16th and 17th centuries.
Subject.	Ancient Law.	Mineralogy.	Physics. Phys. Geography.	Chemistry.	Logic. Rhetoric. Eng. Literature.
Instructor.	President Capen.	Prof. Marshall,	Prof. Dolbear.	Mr. Pitman.	Prof. Shipman.

ELECTIVE CLASSES.

	The second secon			
Instructor.	Subject.	Text Books-Nature and amount of work.	No. of Students, Hours per week.	Hours per week.
Prof. Schneider.	Greek.	Aristophanes, Clouds. Written Translations 1 senior, 1 jr. 2 for year. into Greek.	1 senior, 1 jr. 2	for year.
Prof. Dearborn.	Latin.	Juvenal, 6 Satires; Plantus, Captivi; Nepos. Sallust, Catiline; Virgil, Aeneid, 7th and 8th Books.	1 junior. 3 seniors. 2	2 for ½ year. 2 for ½ year.
	German.	Spielhagen, Roeschen vom Hofe; Lessing, Na-4 seniors, 1 jr. 2 for year. than der Weise, Act I. Goethe, Egmont,	4 seniors, 1 jr. 2	for year.
Prof. Fay.	French.	Act I. Molière, L'Avare; Racine, Phèdre. Molière. Le Tartuffe; About, Le Nez d'un 2 Notaire;	4 sr., 7 jrs., 2 ph. 2 for \$ year. 2 sr., 4 jrs., 2 ph. 2 for \$ year.	for \$ year.
	 Italian.	La Fontaine, selections from Fables; Taine, La Fontaine et ses Fables (100 pages). Sauer's Grammar; Nota, La Fiera.	4 jrs., 2 ph. 2 3 seniors. 1	2 for ‡ year. 1 for ‡ year.
Prof. B. G. Brown.	Mathematics.	{ Calculus, Loomis's. { Higher Algebra, Olney's Part III.	1 junior. 3 for year. 5 lir., 2 soph., 1 for ½ year. 8 a eng. i.	for year. for ½ year.
Prof. M. T. Brown.	Oratory.	Shakspeare, Julius Cæsar. Declamations, selected and original.	8 seniors, 8 jrs. 2 for ½ year.	for ½ year.

In the Classical Departments the work has not materially changed from that of last year. The number of students taking electives in those departments is nearly the same and the usual ground has been covered in the regular work. Through the division of the classes the brighter men have been enabled to make greater progress and attain a higher degree of proficiency.

The work of the Mathematical Department has been carried on this year in accordance with the change proposed in my last report. For the second half-year the Sophomores were allowed to elect analytic geometry, those not electing being required to study Olney's Geometry, Part III. Advanced Course. The Professor was surprised to have one-half of the class elect the analytic geometry. Together with the first class of Engineers the division numbered sixteen members. The class worked with fidelity and gave evidence of no small amount of mathematical ability in mastering the most abstruse discussions and solving the most difficult problems in the text-book.

In the Department of Modern Languages a year of very satisfactory work has been accomplished. It surpasses in some respects, both as to quantity and quality, that of any previous year. Several of the Sophomores have merited special commendation for their zealous application. The Professor recommends the establishment of a worthy prize for the best examination in the department to be passed at the end of the Junior year. The elective work exhibits a large increase over the preceding year. In hours, four hours and a half per week for the year, against three hours last year. In

students, twenty-three against thirteen; or deducting for individuals electing more than one branch, eighteen against thirteen; some Seniors pursuing both French and German for the year and one Italian for the last half-year in addition.

The principal changes in the Department of English Literature and Philosophy, are the omission of work with the Freshman class and the addition of several elective studies. The recognition of the department of Oratory as a participant in the required hours of the weekly programme is the cause of the omission of work with the Freshman class, and a slight reduction of time with other classes has been rendered necessary by the same cause. In addition to the regular work of the department the elective work with members of the various classes has averaged nine hours a week for the year.

By a decision of the Faculty at the beginning of the year Oratory was placed among the electives for the Senior and Junior classes. The result has been a higher quality of work and a more cheerful performance than under the compulsory system. The elective class numbered twenty-three, of whom nine were Seniors, eight were Juniors, and the remainder were from other classes. The course of instruction was varied this year by the delivery of a course of twelve lectures on the theory and art of elocution and gesture to the elective class. The department reports an increasing interest in the prize speaking and reading.

No material changes have been made in the course of Engineering. But the number of students who are taking this course has increased so much

that the department as at present equipped cannot perform the work required of it. Some assistance will have to be provided for it next year. The department has received during the year valuable donations of drawings and models of sailing and steamships, and drawings of locomotives. But the need of books for the use of the department is quite pressing, and it is perhaps desirable that the balance of the Munson gift should be applied to that object.

The extension of the elective system has allowed more hours for work in the Chemical Laboratory this year on the part of the Seniors, four of whom have worked nine hours a week in qualitative analysis, and one the same number of hours in quantitative analysis. The Juniors have had less required work in the laboratory this year than last. Instruction has been given in inorganic chemistry by text-book, and in organic chemistry by lectures. Four Juniors have taken qualitative analysis as an extra elective, working for the greater part of the year from six to twenty hours a week. As work in the laboratory increases the need of gas and steam is more and more pressingly felt. some kinds of quantitative analysis the lack of gas amounts to an actual preventive of the work. The laboratory in fact has very little of the apparatus needful for work of the latter sort, and hence a variety of expedients has been adopted, the Instructor in some instances supplying the lack from his own apparatus.

In addition to the required work in Physics two Seniors have been with the Professor for practical work and experiments three hours a week for a year. Eight Juniors and some Engineers have taken a required elective of two hours a week, but have actually spent three or four times that number of hours in the physical laboratory. An extra course of instruction in physical geography has also been given to four Seniors who elected that study. The department has been successful in discovering through experimental work a few things which have not been heretofore noticed. During the year the remainder of the apparatus for the department ordered in Europe has been received. It is very much to be regretted that the finances of the College are in such a condition as to render further appropriations for physical apparatus this year impracticable. The needs of the department are great and constant, its vitality and usefulness, more perhaps than almost any other department in the College, being in no small measure dependent upon an ample supply of facilities for performing its experiments and illustrating its work.

In the Department of Natural History the character of the instruction given has varied somewhat from that of last year. Mineralogy and physiology have been taught by lectures, and botany, geology and zoology by the aid of text-books with recitations. The spirit and interest shown by the Seniors in this department deserve especial praise, their examination papers ranking higher in merit, than those of previous classes. The Juniors have had instruction in botany since February and their progress has been very satisfactory. Besides numerous histological preparations, the Professor has ground and polished about two hundred thin sections of minerals and rocks for use with the microscope. He has also drawn and colored a new

geological map of the United States, six feet by five, and a dozen small maps and views, three feet by two, illustrating the volcanic phenomena of Vesuvius.

The President of the College has thought proper to continue the practice, attended with such good results last year, of giving lectures to the Freshmen during one half of the year, with the view of affording them a clearer conception of the advantages to be gained by systematic study and awakening in them some enthusiasm for the opportunities which the College offers. In addition to the regular work of the Seniors in ethics and political economy, six members of the Senior class elected the study of jurisprudence, and were taught three hours a week during the greater part of the year, using for the most part Maine's Ancient Law as a basis, supplementing it, however, with lectures. The class exhibited a profound interest in the latter study and the progress made by them was very marked.

The management of the Library remains the same as for several years past. The care of the books is admirable, and the opportunities afforded for their use are as good as it seems possible to make them while occupying the present narrow quarters. The accessions to the library by purchase have been small, mainly from the income of the Joy fund. Miscellaneous donations have likewise been small. A very valuable addition, however, has been made in the library of the late Rev. Thomas Whittemore, D.D., presented by Mrs. L. C. Whittemore. The collection contains about twenty-five hundred volumes, and nearly two thousand pam-

phlets and periodicals. Of the volumes, not quite one-third are duplicates, and even these are in many cases superior to the copies previously contained in the library. This timely gift is acceptable not only on account of its intrinsic worth, but because of its association with a great and good man who took a deep interest in the establishment of the College. Whoever shall undertake to write the history of the movements which gave this College to the world, cannot overlook the influence exerted by Dr. Whittemore as preacher and editor. Now his books, which furnished the nutriment and companionship of his mind, his "poor, dear books," as Rufus Choate called the treasures of his library, have come to the College for their permanent abode, to do for a countless succession of scholars what they did for his own brain. Truly the scholarly divine could have no fitter or more lasting monument. The example of Mrs. Whittemore is worthy of imitation. The needs of the library are far from being met. Indeed there is scarcely any limit to the additions which may be profitably made to the library of a college. It cannot be regarded as complete until it has gathered into its alcoves all the literature of all ages, and can display to the student every record that has been preserved on any subject, in any language, alive or dead. The attention of the friends of the College should be earnestly called to this subject. Not only should the need of more books be pressed, but the need of a new library building in which the treasures we already have can be safely stored and so classified and arranged as to be easily accessible to all, should be strongly emphasized. The number of duplicates

in the library now amounts to more than a thousand volumes. Measures should be taken to dispose of them to the advantage of the library. I would recommend that authority be given to sell them and procure new books with the proceeds, taking care, however, to make direct exchanges whenever practicable.

The College has been generously favored during the year with Lectures by Mr. James T. Fields, the Rev. Henry Blanchard and the Rev. E. C. Bolles, Ph.D.

It only remains for me in closing this report to reiterate the needs of the College. First of all there is need of a much larger unrestricted endowment. Such an endowment must be had if the College is to hold the place which it has already secured among the educational forces of the land, and continue to keep pace with the improvements which are making in educational facilities on every hand. The duty will devolve upon the Trustees of instituting measures to secure this endowment at once. We need also in the way of buildings, besides those which I have already mentioned, a building for recitation rooms. present accommodations for lectures and recitations are not nearly adequate to the present wants of the College. Once more, also, I would call the attention of the Trustees to the need of a chapel. the friends of the College who are specially solicitous concerning its religious interests were aware how much is yearly lost in the possibilities of religious training, through the lack of a chapel, they would not long delay to supply this need. A suitable structure, costing from twenty-five

thousand dollars to fifty thousand dollars is needed, not only as a crown and ornament of the hill, but for the moral and spiritual welfare of the students. There are many wealthy persons, to whose liberality such a building would serve as a memorial for many generations, who ought not to hesitate to erect the structure at their own cost for the advantage and honor of the College.

The attention of the Trustees is called to the following report of the Dean of the Divinity School.

ELMER H. CAPEN,

President.

Tufts College, May 29, 1877.

THE DIVINITY SCHOOL.

To the President:

In the Department of Theology I have to report the work of an exceptionally successful year. At its commencement a larger class of the First Yearsmen entered than ever before, and although it has been lessened by sickness and other causes, the average number of our students has been more than twenty-five per cent above that of any previous year; and at the close we are to give to our ministry seven young men, four of whom are College graduates, and all have gone over our prescribed course of study. We confidently expect to fill their places, and commence the work of the coming year with at least thirty students.

During the whole year instruction has been regularly given in the various branches included in our curriculum by the several Professors, assisted as they were the preceding year by Rev. G. T. Knight, of the College class of 1872, and of the class of this School of 1875, whose services in the department of Ecclesiastical and Dogmatic History have been supplemented by some valuable Lectures from Rev. A. St. John Chambré, to whose kindness the Divinity School renewedly acknowledges itself under many obligations.

The Professor of Systematic Theology has not only given instruction in this and its associate studies, as Comparative Theology, and the Distinctive Doctrines of Universalism, but also in the Greek of the New Testament, Principles of Criticism and Exegesis, Hebrew Antiquities, German, and the critical reading of the Old Testament.

In this reading of portions of the Old Testament, in which the First Yearsmen were exercised twice a week during the first-half year, the object was to note all peculiarities of thought or language, as well as all allusions to ancient customs and manners, to explain as far as possible obscurities, and enable the student in some degree to throw himself back among the people with whose history we have so much to do, to see the country where they lived with its scenery and surroundings, and so aid him in forming a method and it is hoped, a habit, for his private reading of the Scriptures, and for making himself useful in the Bible Class and Sunday School.

Using Whitney's Grammar and Reader, the First Yearsmen have through the whole year taken two lessons a week in German, and though most of them came to the study without any linguistic drill they have made satisfactory progress, mastering the greater part of the grammar and reading with frequent reviews, about forty pages of the Reader.

They have also been over the greater part of Keil's Introduction to the Old Testament, with three lessons per week during the first half of the year, and two the last half, and have gained a tolerable knowledge of the history of the Hebrew language and literature, of the lives and times of the several authors of the canonical books, so far as they are known, and the several divisions of these books, ancient translations, and other matters necessary to a general understanding and estimate of this important part of Scripture. In Hebrew Antiquities, with one lesson per week, the class has gone over the more important portion of Jahn.

The work of the Second Yearsmen in this department has embraced Introduction to the New Testament, Hermeneutics, and New Testament Greek. Taking Bleek as a text-book, the class has, with two lessons a week through the first half of the year, gone over the historical books of the New Testament and the more important of the Epistles. In Hermeneutics, familiar lectures, founded on Doede and Ernesti, have been given once a week during the last half of the year; while with two lessons a week for the same time the class has read about half of the Gospel of St. John and a few chapters of St. Luke.

The Third Yearsmen have in this department taken two lessons per week in New Testament Greek and Exegesis, continued through the whole year, nearly completing the historical books. The last half of the year the class entered upon the study of Systematic Theology, using Dr. Hodge's large work as text-book, and taking up the subject of Anthropology. As I remarked in my last report, the facts of theology have to be contemplated through human faculties. God's

personality and perfections can be conceived by us only as we have something analogous in our own being. The very existence of God is, perhaps, best argued from the things made and especially from the human soul. "He that formed the eye, shall he not see?" It is inconceivable that the Author of our existence should not be a personal, intelligent, and moral Being. The question whether God has revealed himself to man in any other way than by his wisdom and goodness displayed in his works, is a simple question of fact, and is proved like all other questions of that class by the evidence belonging to the case.

The work of the Fourth Yearsmen, or Seniors, has consisted in the Study of Systematic Theology, Comparative Theology, and the Distinctive Doctrines of our own peculiar faith. With two lessons a week during the first half of the year the class completed the course of Systematic Theology, still using Dr. Hodge's work, while the last half has been devoted to Hardwick's "Christ and Other Masters" for Comparative Theology. The year was concluded by a few lectures on the Distinctive Doctrines of Universalism.

Instruction was given by Professor Leonard in Homiletics, Christian Evidences, Church Polity, and Pastoral Theology.

In regard to subjects and methods, very little need be added to what was said in the report of last year.

Homiletics.—The Second Yearsmen began this study about the 1st of February. After a few lessons from Hoppin, and some informal lectures, the class was called to practical work in the analysis of texts, in generalizations, the statement of topics, the different methods of division and development.

In the early part of the year the Third Yearsmen were engaged upon studies in interpretation, invention, methods of discussion, plans of sermons, style, &c. The work of writing and delivering sermons was begun in the early part of the year. The sermons were preached before the class, and criticised by the students, as well as by the instructor. These sermons were re-written, so far as necessary, and submitted to the Professor for private criticism.

The work of the Seniors, in this branch of study, was

confined almost wholly to the composition and delivery of sermons, and the practice of extemporaneous speaking. In the early part of the year, however, this class gave some attention to homiletical analysis of the New Testament, and the study of printed sermons. The sermons preached by the class were subjected to the usual criticism, both public and private.

Nothing, perhaps, has marked the teaching in this important branch of study, more than the effort to make the instruction practical, and to secure variety in method. The aim has been, not to fasten upon the student the methods peculiar to the teacher, but by placing upon the black-board specimens of division and treatment from widely differing minds, to encourage individuality and independent discussion.

Christian Evidences. — The study begins with the third year, and continues through the year. During the past year the class followed the order of subjects as set down by Dr. Bulfinch, in his "Studies on Evidences." It was the method of the class-room to present carefully prepared notes, from various sources, on the specific topics introduced, aiming to reflect, not only the views of the defenders of Christianity, but of its assailants as well. This work included analyses of the views of the older Rationalists, of the theories of Strauss, of Baur, of Parker, Renan, Schenkel and others; and also a summary of arguments from such authors as Luthardt, Farrar, Rawlinson, Isaac Taylor, Rogers, Dr. J. B. Fisher, Maurice, Dr. Young, Bushnell. It has been the aim to encourage discussions and independent investigation, especially in regard to the later antagonisms between faith and knowledge, reason and Revelation.

Church Polity is assigned to the fourth year. During the past year the class was occupied, for the most part, with the Ecclesiastical Polity of the New Testament. The subjects taken up were the organization of the Christian Church, the Christian Ministry and Worship, the Sacraments, &c.

Pastoral Theology occupied the students during the last half of the fourth year. They read Vinet as adapted by Hoppin.

In this particular subject, however, the teacher has more confidence in familar lectures, and conversations of the class-room, than in set lessons from a text-book. During the past year it has been the aim to discuss practical questions, such as the choice of a settlement, the nature of the work, the organization of a parish, personal influence of the minister, pastoral visiting, &c. The students are held to specific topics and examined on all the work, and yet it has often happened that the best results have been secured by giving the assigned hour to some immediate question.

Instruction in Logic, British Eloquence, Mental Science, Ethics, and Natural Theology, was given by Prof. Tousey.

The general method pursued with these subjects was to select some treatise available as a text, and to engraft upon this by means of annotations, lectures, and parallel readings; the aim being, not so much to inculcate a particular set of opinions, as to lead the student to the sources of evidence, and to develop a vigilant and correct method of inquiry. Much importance was attached to the Dialectic of the classroom, as securing a ready command of resources, and as a potent corrective of ill-defined notions, hasty generalizations. and all half-thinking. The relief afforded by the transfer of Greek and Rhetoric to another department of the school, has enabled the instructor to increase the amount and the thoroughness of the work upon his special branches of study, and to attain more satisfactory results than were possible while attempting instruction upon such an unusual number of unrelated subjects.

Logic.—The study of Logic was taken up by the First Yearsmen at the middle of the year, using Bain's Treatise as class-book. Three exercises a week were required. The principal subjects treated were, the Psychological Data of Logic; the Province of Logic; the Notion, and the Proposition; the Syllogism, its axiom, varieties, function and value; the Deductive Sciences; and the Fallacies of Immediate and Deductive Inference. The consideration of Induction was also begun before the end of the year. Much time was given to the various kinds of Logical Analysis. Some attention was

directed to the history of the science, and to logical controversies. It was, however, the special aim of the instructor to secure, not merely a skillful use of logical formulæ, but to develop habits of close analysis, definite conception, precise statement, and a scholarly regard to correct reasoning.

The Second Yearsmen renewed the study of Logic at the beginning of the year, giving special attention to Induction, Definition, the Logic of Psychology, the Laws of Evidence, and the Fallacious Tendencies of the Mind. Used Bain's treatise on Inductive Logic. Pains were taken to point out the positions peculiar to this writer, and his school of philosophy. Exercises in application of the Experimental Methods, and in the Analysis and Construction of Arguments, were persevered in throughout. The required study in this branch terminated with the first part of the year. But the class having unanimously petitioned to continue the subject, it was admitted as an elective for the remainder of the year. The subject of Fallacies was first elaborated in several lectures. Thenceforth the class were exercised in the practical application of logical principles. Reasonings in every form of statement, and drawn from widely different domains, were introduced for illustration and analysis.

British Eloquence.—The Second Yearsmen were engaged upon this subject for the first half of the year. The work was confined chiefly to the study of Burke, Junius, Chatham and Erskine. Prof. Goodrich's collection was used as text. After a general survey of the discourse, it was customary to take it up sentence by sentence, and paragraph by paragraph, subjecting it to close analysis with special view to the application, and illustration, of both rhetorical and logical principles. First was considered the Purpose of the speaker; secondly, the Disposition of the Material, and the Conclusiveness of the Thought; thirdly, the Style, its excellencies and its faults. Lectures and annotations were introduced as occasion seemed to require. Particular studies were made on such subjects as the Antitheses of Junius, and the Transitions of Burke.

Mental Science.—This subject was taken up by the Second Yearsmen, and pursued for the entire year. Three exercises a

week were held during the year. Used Porter's Human Intellect as a text-book. The effort was made to set forth distinctly the great questions of philosophy, such, for instance, as relate to the doctrine of the External World, the Origin of Knowledge, the Absolute, the Nature of Universals; and to explain the answers that have been given by different schools of thought. A carefully prepared scheme for the classification of the various writers on philosophy was submitted to the class, together with other aids and suggestions to a further prosecution of the study.

Ethics. — Instruction in Moral Philosophy was given throughout the year to the Third Yearsmen. Two and three exercises a week were held. For the first part of the course, Dr. Calderwood's Hand-book of Moral Philosophy was used. Special attention was given to the psychological analysis of Man's Moral Nature, and to a critical review of the various Ethical Theories. The class next undertook the study of the Will. This led to a review of the great controversy respecting the Freedom of the Will and to a discussion of Modern Determinism. At length an extended criticism of the more recent phases of Utilitarianism as represented by Paley, Bentham, and J. S. Mill, was made with the aid of Prof. Birks' late Cambridge lectures. This, with notices of ethical literature, and suggestions relative to further reading, concluded the course.

Natural Theology.—This study extends through the fourth year of the course. The subject was entered upon with the aid of Dr. Fleming's Compend, and continued on the basis of Paley's Natural Theology, Butler's Analogy, and Argyll's Reign of Law. The various modes of the theistic argument were formally set forth, their grounds inspected, and their logical value, so far as possible, determined. Carefully prepared Theses summarizing and expounding Argyll's Reign of Law, were required of the Bachelors of Arts.

Lectures were occasionally given on special topics, but the prevailing method of instruction in this, as well as the foregoing studies, was to employ a compend and to supplement it with annotations in the form of critiques, expositions, and

selected readings. Throughout the effort was made to treat the subject in the light of contemporary criticism, and of the newest developments of science.

Instruction was given by Mr. Knight in Rhetoric, in History, Biblical and Ecclesiastical, and in Greek.

Rhetoric—(not including British Eloquence nor Homiletics) extends through the first year. We first use the text-book of Bain, except the chapter on Poetry.—Two exercises per week, for a little more than one half the year. And, for the remainder, the text of Whately, Part I., and Spencer's Philosophy of Style, with three exercises per week. During the year, six Themes were written by the class, of which number, four were in illustration of the four kinds of Composition (as given by Bain). Each essay was returned with a written criticism, which aimed both to be strict and to respect the student's individuality. On account of the inexperience of this class, the recitation hour is perhaps characterized by more than the usual illustrative notes and extracts, and by particular attention to the fundamentals of Rhetoric. Frequent reference was also made to the use of rhetorical methods in preaching.

History, as written in the New Testament, with the Geography of the countries to which it relates, engaged the First Yearsmen.

Work was begun with the Geography and Topography of Palestine and its surrounding countries. The student was required to draw a map of Palestine, and afterward a map of New Testament Asia, and to locate and describe the principal natural and artificial features. Then, with the assistance of Coleman's text-book, and of Robinson's Harmony, the life of Christ was taken up. Sufficient time and interest were engaged, for the class to attempt to judge the correctness of the Harmony. This was continued with two exercises per week, for one-half the year. In the study of the Acts, and of the Epistles of St. Paul, the principal authority was Conybeare and Howson's work. On the remaining Epistles and the places associated with them, notes from various authorities were given. This was completed with one exercise per week during the second half of the year.

History of Doctrines, with the Third Yearsmen. Text-book of Hagenbach, both volumes completed. Notes were given at the important points. Also a tabular statement of the principal doctrines of the Church, and of its great teachers from the Apostles to the present day; exhibiting at a glance both the doctrinal system of each leading man, and the historical development of each doctrine. The success of the plan is thought to amply justify the extra work that it requires of the instructor. Two exercises per week, throughout the year, were required of the class.

Church History, with the Second Yearsmen. History of the events in, and having to do with the Church, from the Pentecost to the year 1517 A.D. The text of Hasé was used as a basis, and was supplemented by extensive notes. It was also attempted, by means of the above-mentioned tabular statement of doctrines, to so fill out Hasé's partial treatment of doctrine, as to make it unnecessary to go over the ground again next year with Hagenbach. If this attempt is successful, it will shorten the course in History by half a year, and will thus give more time to Theology and Homiletics. The class had two exercises per week for the whole year.

Greek.—As now arranged, the beginners in Greek spend one year with Goodwin's Greek Grammar, and Leighton's Lessons. They then, for one-half the second year, take some part of the New Testament as a further study of the language; and then with the Bachelors of Arts take Exegesis with Dr. Sawyer. Two exercises per week. It should also be stated that the present Second Yearsmen, in addition to their prescribed work, have elected Greek for the last half of this year.

By Mr. Chambré, nine lectures on Church History have been given during the past year. Three of them in continuation of his last years' course, had to do with the Middle Ages, and were given to the Third Yearsmen. The other six began with the condition of the world at the advent of Christianity, and afterward included a careful history of Christology until A.D. 325. Particular attention was also given to the history of the doctrine of Universal Salvation. These lectures were given to the Second Yearsmen.

It will be seen from this statement of our work, that our course of study embraces a large number of topics, and also that much of our instruction consists in what may be called class-room drill. However it may be in other Theological Schools, we believe this to be altogether best for our students. We encourage great freedom of discussion, and desire that the young men here shall learn to look at all subjects from their own stand-point, and express their opinions dispassionately but freely. This gives opportunity to meet them on their own ground, remove their difficulties, and, as we hope, establish them intelligently in the faith. Such lectures as are given are rather familiar than formal, and the whole aim we have in view is to avoid everything like cramming, and develop, as far as possible in a simply normal way, the powers of the student, and so fit him for the duties of his profession.

Permit me to say that I take no little pride in the instruction given by my associates in the Faculty. If accuracy of knowledge, ability to teach, and devotion to their profession, afford any assurance of successful results, then the denomination has a right to expect as the fruit of our young school, a class of well educated, earnest and faithful Christian Ministers.

Allow me in conclusion to again call your attention, and through you the attention of the Trustees and the denomination, to our pressing need of a building appropriated to our exclusive use,—a building of such size and construction as would afford all necessary accommodations for a school of forty or fifty students. Is there not some individual in our extended Church, who would do himself the distinguished honor, and the cause of Truth the signal service, of meeting this great need? Or are there not many who would gladly aid in a work of such wide and beneficent influence? With a proper Divinity Hall we very much need also a good Theological Library.

Respectfully submitted,

THOMAS J. SAWYER,

Dean of the Faculty.



